Listing of the Claims

Applicants have amended Claims 3 and 4 to indicate that the temperature scale recited on line 2 of each claim is Celsius. Claims 11 and 12 were amended to correct a typographical error.

1. (Original) A process for making biomedical absorbable foams suitable for use in the repair and regeneration of dermal tissue, comprising:

preparing a homogenous solution comprising a synthetic, biocompatible, bioabsorbable, aliphatic, elastomeric copolymer comprising copolymerized ε-caprolactone and glycolide at a molar ratio of ε-caprolactone:glycolide ranging from about 30:70 to about 40:60 and a solvent in which the copolymer is soluble, wherein the homogenous solution comprises about 5 percent by weight of the copolymer and about 95 percent by weight of the solvent,

placing the homogenous solution in a mold or other device suitable for preparing foam tissue scaffolds suitable for use in repair and regeneration of dermal tissue,

quenching the homogenous solution at a temperature and rate of temperature reduction sufficient to provide foam tissue scaffolds suitable for use in repair and regeneration of dermal tissue,

solidifying the solution to form a solid; and

removing the solvent from the solid to provide a biocompatible, bioabsorbable porous foam suitable for use in the repair and regeneration of dermal tissue.

2. (Original) The process of claim 1 wherein the copolymer comprises copolymerized ε-caprolactone and glycolide at a molar ratio of ε-caprolactone:glycolide of about 35:65.

3. (Currently Amended) The process of claim 1 wherein the solution is quenched by exposing the solution to a temperature of about -17°C, whereby the temperature of the solution is reduced at a rate of from about 2°C/min to about 50°C/min.

4. (Currently Amended) The process of claim 2 wherein the solution is quenched by exposing the solution to a temperature of about -17°C, whereby the temperature of the solution is reduced at a rate of from about 4°C/min to about 20°C/min.

5. (Original) The process of claim 1 wherein the solution further comprises a therapeutic agent.

6. (Original) The process of claim 5 wherein the therapeutic agent is selected from the group consisting of anti-microbial agents, hemostatic agents, cytostatic and cytoxic drugs, anti-infectives, hormones, analgesics, anti-inflammatory agents, oncological pharmaceuticals, peptides, small molecules, growth factors and anti-fungal agents.

7. (Original) A synthetic, biocompatible, bioabsorbable foam scaffold suitable for use in the repair and/or regeneration of dermal tissue: comprising,

a synthetic, biocompatible, bioabsorbable, aliphatic, elastomeric copolymer comprising copolymerized ε-caprolactone and glycolide at a molar ratio of ε-caprolactone:glycolide ranging from about 30:70 to about 40:60, wherein said scaffold is about 0.25 mm to about 0.75 mm thick and has porosity of 90 percent or greater.

8. (Original) The foam scaffold of claim 7 wherein said foam scaffold is about 0.4 mm to about 0.6 mm thick and has porosity from 90 percent to 97 percent.

9. (Original) The foam scaffold of claim 7 wherein the copolymer comprises about 35 mole percent ε-caprolactone copolymerized with about 65 mole percent glycolide.

10. (Original) The foam scaffold of claim 9 wherein the scaffold is about 0.5 mm thick and has porosity of about 93 percent.

11. (Currently Amended) The foam scaffold of claim 7 wherein said scaffold is substantially absorbed by the body within about 120 days of ~~implantion~~ implantation.

12. (Currently Amended) The foam scaffold of claim 7 wherein said foam scaffold is completely absorbed by the body within about 90 days of ~~implantion~~ implantation.

13. (Original) The foam scaffold of claim 7 wherein about 50 percent of said thickness of said foam scaffold is infiltrated by granulation tissue within about 10 days of implantation.

14. (Original) The foam scaffold of claim 7 wherein about 75 percent of said thickness of said foam scaffold is infiltrated by granulation tissue within about 7 days of implantation.

15. (Original) The foam scaffold of claim 7 wherein said foam scaffold is substantially submerged in or enveloped by granulation tissue within about 28 days of implantation.

16. (Original) The foam scaffold of claim 7 wherein said foam scaffold is completely submerged in or enveloped by granulation tissue within about 28 days of implantation.